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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,238	09/09/2004	Gilles Orange	RN02030	9087

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EXAMINER	
BROWN, JENNINE M	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/507,238	ORANGE, GILLES	
	Examiner	Art Unit	
	Jennine M. Brown	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 27-48 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 27-48 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 45-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 45-46 recites the limitation "a ceramic material" of claim 38. There is insufficient antecedent basis for this limitation in the claim. Applicant is crossing statutory categories. Applicant is receiving an instant action on the merits and these limitations will not be further treated by the examiner. Upon amendment of these limitations, they will be withdrawn based upon original presentation.

Claim 47 recites the limitation "a roofing tile or paving tile" of claim 45. There is insufficient antecedent basis for this limitation in the claim. Applicant is crossing statutory categories. Applicant is receiving an instant action on the merits and these limitations will not be further treated by the examiner. Upon amendment of these limitations, they will be withdrawn based upon original presentation.

Claim 48 recites the limitation "hydraulic or asphalt binder" of claim 38. There is insufficient antecedent basis for this limitation in the claim. Applicant is crossing statutory categories. Applicant is receiving an instant action on the merits and these limitations will not be further treated by the examiner. Upon amendment of these limitations, they will be withdrawn based upon original presentation.

Claims Analysis

Any optional element will be treated as not present in the process claimed by applicant, as it is not necessarily present as stated in the claim language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 27-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linton (US 5512094 A).

See entire document. Figure 1 shows a substantially spherical material. The silica has a mean particle size of 0.05-15 μm (col. 2, l. 39-40) and a specific surface area of at least 50 m^2/g (col. 1, l. 31-32; col. 2, l. 43). Linton discloses that the average size and shape of the powder particles is controlled by the configuration of the silica shells (col. 3, l. 29-42) wherein the size and shape of the coated powders can be

controlled by appropriately selecting a core material which is used to form the silica shell to obtain a wide range of products (col. 4, l. 36-40). This provides the motivation to increase or decrease the mean particle size of the silica spherical material depending upon the metallic oxide coating used and application's end use making it an obvious variable to one of ordinary skill in the art. Linton discloses a colorant obtained by calcination of a precipitated silica pre-impregnated with an inorganic pigment in the form of a dissolved soluble salt. (col. 1, l. 37-40, 57-62; col. 2, l. 5-10; col. 4, l. 19-35)

Linton discloses a method of coating hollow silica spheres with finely distributed metal oxides such as iron oxides (see example 1 – process for preparing iron oxide coated silica shells; example 7 process for preparing iron coated silica shells; col. 6, l. 50-col. 12, l. 33) wherein the recovered powder was calcined at 550-900°C and in example 1 (preparing zirconium oxide coated silica shells – col. 6, l. 17-19) disclose calcination at 1000 °C and 1200 °C (col. 8, l. 41-42). These examples disclose the use of dissolved salts of metals and the use of heating to oxidize the metal to the oxide as disclosed supra. Although the instant method limitations have less steps than that claimed in the prior art, in general, the transposition of process steps, or the splitting of one step into two, where the processes are substantially identical or equivalent in terms of function, manner and result, was held to not patentably distinguish the processes. Ex Parte Rubin (POBA 1959) 128 USPQ 440, Cohn v. Comr. Pats. (DCDC 1966) 251 F Supp 378, 148 USPQ 486).

DOP oil uptake value is considered by examiner to be an inherent property of the material itself and not germane to the patentability of the process limitations.

Claims 27-29, 32, 34-40, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duff, et al. (US 6565973 B2).

See entire document. Duff, et al. discloses a colorant obtained by calcination of a precipitated silica (col. 6, l. 45-50) pre-impregnated with an inorganic pigment (metal oxide – col. 5, l. 26-col. 6, l. 44) in the form of a dissolved soluble salt. (iron chloride - col. 7, l. 53-54 to produce iron oxide – col. 7, l. 58-60 which is added to silicon dioxide supports – col. 7, l. 61-64) and the particle size 1 nm to 10 μm is disclosed as corresponding to the diameter of a sphere (col. 3, l. 66-67).

Duff, et al. disclose more than one method of making a composite comprising iron compounds and silica (col. 3, l. 36-49; col. 4, l. 1-6, 14-18; col. 5, l. 11-19, 26-42). (col. 7, l. 46-col. 15, l. 16) A grinding step is disclosed (col. 9, l. 62-67).
DOP oil uptake value is considered by examiner to be an inherent property of the material itself and not germane to the patentability of the process limitations. Since drying was done in a vacuum oven at 80 °C for several hours after centrifugation of the material (col. 8, l. 2-4), it would have been obvious to one of ordinary skill in the art that an equivalent drying technique would be to dry the materials at standard temperature and pressure with a much greater temperature.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 27-48 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 27-48 of copending US Application 10/507234. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a process for the preparation of a colorant comprising silica with an inorganic pigment, wherein the pigment is an iron oxide or soluble iron salt is mixed with precipitated silica (having a BET surface area of at least 50 m^2/g), calcined at temperatures between 600-1300 °C for at least 30 minutes with uses in the ceramic, roofing and asphalt binding areas.

A prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in

structure will have similar properties." In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (discussed in more detail below) and In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991) (discussed below and in MPEP § 2144) for an extensive review of the case law pertaining to obviousness based on close structural similarity of chemical compounds. See also MPEP § 2144.08, paragraph II.A.4.(c).

Since the chemical compositions in the methods are obvious variants of one another, the methods would have been obvious based on optimization of results, wherein the normal desire of scientists or artisans to improve upon what is already generally known which provides the motivation for modifying applicant's methodologies.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmb

J. A. LORENGO
SUPERVISORY PATENT EXAMINER